

Claims:

1. An ion generator comprising:

a first electrode;

5 a second electrode;

a voltage generator electrically coupled to the first electrode and the second electrode in order, when energized, to create a flow of air in a downstream direction from the first electrode to the second electrode; and

wherein said second electrode is comprised of two or more surfaces that are at an angle

10 to each other.

2. The ion generator of claim 1 wherein said second electrode is Z-shaped.

3. The ion generator of claim 1 wherein said second electrode has a tail section that is  
15 substantially wider than a nose section.

4. The ion generator of claim 1 wherein said second electrode has a downstream tail section  
that is substantially wider than an upstream nose section.

20 5. The ion generator of claim 1 wherein said second electrode has a leading planar section  
and a trailing section that is at an angle to said leading planar section.

6. The ion generator of claim 1 wherein said second electrode has an upstream leading planar  
section and a downstream trailing section that is at an angle to said leading planar section.

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7. The ion generator of claim 1 wherein said second electrode is hollow.

8. The ion generator of claim 1 wherein said two or more surfaces are each planar.
9. An ion generator comprising:  
5      a first electrode;  
      a second electrode;  
      a voltage generator electrically coupled to the first electrode and the second electrode in order, when energized, to create a flow of air in a downstream direction from the first electrode to the second electrode; and  
10     wherein said second electrode has a tail section that is wider than a nose section.
10. The ion generator of claim 9 wherein said tail section is located downstream from said nose section.
15. 11. A device for conditioning air comprising:  
      a housing with an air inlet and an air outlet;  
      a first electrode;  
      a second electrode;  
      said first electrode located closer to said air inlet than said second electrode;  
20     said second electrode located closer to said air outlet than said first electrode;  
      a potential generator electrically coupled to the first electrode and the second electrode in order, when energized, to create a flow of air in a downstream direction from the first electrode to the second electrode; and  
      wherein said second electrode is comprised of two or more surfaces that are at an angle  
25     to each other.

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12. The ion generator of claim 11 wherein said second electrode is Z-shaped.
13. The ion generator of claim 11 wherein said second electrode has a tail section that is wider than a nose section.
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14. The ion generator of claim 11 wherein said second electrode has a downstream tail section that is wider than an upstream nose section.
15. The ion generator of claim 11 wherein said second electrode has a leading planar section and a trailing section that is at an angle to said leading planar section.
16. The ion generator of claim 11 wherein said second electrode has an upstream leading planar section and a downstream trailing section that is at an angle to said leading planar section.
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17. The ion generator of claim 11 wherein said second electrode is hollow.
18. The ion generator of claim 11 wherein said two or more surfaces are each planar.
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19. A device for conditioning air comprising:
- a housing with an air inlet and an air outlet;
- a first electrode;
- a second electrode;
- said first electrode located closer to said air inlet than said second electrode;
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- said second electrode located closer to said air outlet than said first electrode;
- a potential generator electrically coupled to the first electrode and the second electrode in

order, when energized, to create a flow of air in a downstream direction from the first electrode to the second electrode; and

wherein said second electrode has a tail section that is wider than a nose section.

5        20. The ion generator of claim 19 wherein said tail section is located downstream from said nose section.

10      21. The ion generator of claim 1 wherein said second electrode is teardrop-shaped with a small rounded end and a large bulbous end and with the pointed end located closer to said first electrode.

15      22. The ion generator of claim 1 wherein said second electrode is V-shaped with a rounded end, and with the rounded end of the V-shape located closer to said first electrode.

20      23. The ion generator of claim 9 wherein said second electrode is teardrop-shaped with a small rounded end and a large bulbous end and with the small rounded end located closer to said first electrode.

25      24. The ion generator of claim 9 wherein said second electrode is V-shaped with a rounded end, and with the rounded end of the V-shape located closer to said first electrode.

25      25. The ion generator of claim 11 wherein said second electrode is teardrop-shaped with a small rounded end and a large bulbous end and with the pointed end located closer to said first electrode.

26. The ion generator of claim 11 wherein said second electrode is V-shaped with a rounded

end, and with the rounded end of the V-shape located closer to said first electrode.

27. The ion generator of claim 19 wherein said second electrode is teardrop-shaped with a small rounded end and a large bulbous end and with the small rounded end located closer  
5 to said first electrode.

28. The ion generator of claim 19 wherein said second electrode is V-shaped with a rounded end, and with the rounded end of the V-shape located closer to said first electrode.

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